No. 89-243

In The
Supreme Court of the United States
October Term, 1989

ELI LILLY AND COMPANY

Petitioner,

v.

MEDTRONIC, INC.,

Respondent.

MOTION OF AMICUS CURIAE NEUROMEDICAL TECHNOLOGIES, INC. FOR LEAVE TO FILE THE ACCOMPANYING BRIEF AMICUS CURIAE IN SUPPORT OF PETITIONER ELI LILLY

JOHN R. FEATHER
Counsel of Record
VADEN, EICKENROHT,
THOMPSON & BOULWARE
One River Way, Suite 1100
Houston, Texas 77056

Of Counsel
MALCOLM H. SKOLNICK
University of Texas Health Science Center
Neurophysiology Center
1343 Moursund Avenue
Houston, Texas 77030

No. 89-243

In The
Supreme Court of the United States
October Term, 1989

ELI LILLY AND COMPANY

Petitioner,

v.

MEDTRONIC, INC.,

Respondent.

MOTION OF AMICUS CURIAE NEUROMEDICAL TECHNOLOGIES, INC. FOR LEAVE TO FILE THE ACCOMPANYING BRIEF AMICUS CURIAE IN SUPPORT OF PETITIONER ELI LILLY

Pursuant to Rule 36.1 of this Court. *Amici curiae,* Neuromedical Technologies, Inc. (NMTI), respectfully moves this Court for leave to file the attached brief of *amicus curiae* in support of Petitioner, Eli Lilly and Company. Movants have been

unable to secure consent of Respondent.[1].

NMTI is a small company developing innovative technology to apply transcranial electrostimulation therapy to relieve chronic pain, ameliorate stress and abate physiological symptoms in drug withdrawal syndromes. NMTI holds patents and is prosecuting further patent applications in the field of this technology. The devices and processes NMTI hopes to bring to commercial clinical use are subject to FDA approval.

This Court has granted a writ of certiorari to review the decision of the United States Court of Appeals for the Federal Circuit in *Eli Lilly and Co. v. Medtronic, Inc.*, 872 F.2d 402 (Fed. Cir. 1989) interpreting 35 U.S.C. § 271(e)(1) to provide that it shall not be an act of infringement to make, use or sell a patented medical device solely for uses reasonably related to the development and submission of information under a Federal law which regulates the manufacture, use or sale of such device.

NMTI is not currently involved with any products of the type referred to in this case but is acutely aware of the chilling impact that the decision of the court below will have on innovation in research and development on medical devices. Further, NMTI has identified several companies conducting clinical investigations on processes which would potentially infringe NMTI patents in the field but for the erroneous decision of the Court of Appeals. Therefore NMTI has a strong interest in this Court's review of the holding by the court below and moves this Court for leave to file this brief as *amicus curiae* in this matter.

The accompanying *amicus curiae* brief sets out arguments that NMTI respectfully wishes to put before the Court which support the arguments made by Lilly in its Petition and agree

---

[1] *Amici curiae* obtained the consent of the petitioner to file its brief. On Monday, November 20, 1989, *amicus curiae* contacted counsel for the respondent Medtronic, Inc. pursuant to Rule 36.1 of this Court. Respondent's counsel declined to give its consent without first thoroughly reviewing the brief. Constraints of timely submission prevented such review if the *amicus curiae* had any expectation of filing the brief in this action. Therefore, this motion is required.

with the briefs submitted by other *amicus curiae*. Further, the subject brief advances additional reasons why this Court should distinguish drugs and devices and reverse the decision of the court below.

Respectfully submitted,

Dated: November 22, 1989

JOHN F. FEATHER
Counsel of Record
VADEN, EICKENROHT,
THOMPSON & BOULWARE
One Riverway, Suite 1100
Houston, Texas 77056

Of Counsel
MALCOLM H. SKOLNICK
University of Texas Health Science Center
Neurophysiology Center
1343 Moursund Avenue
Houston, Texas 77030

QUESTIONS PRESENTED

35 U.S.C. § 271(e)(1) provides that "it shall not be an act of infringement to make, use or sell a patented invention ... solely for uses reasonably related to the development and submission of information under a Federal law which regulates the manufacture, use or sale of drugs or veterinary biological products."

The first question is that posed by Petitioner, Eli Lilly and Company:

Whether the Court of appeals erred as a matter of law by expanding the patient infringement exemption of 35 U.S.C. § 271(e)(1) beyond "drugs" and "veterinary biological products" in the exact wording of the statute to encompass, and thereby to erode patent protection for medical devices, food additives, color additives and all other FDA regulated, nondrug products?

The second question presented is:

Whether, given the clear differences between the manner in which the FDA regulations enacted in Title 21 which specify the manner in which drugs as contrasted with devices must be investigated for regulatory approval, the meaning of "uses reasonably related to the development and submission of information" can possibly be reconciled and executed within the context of § 271(e)(1) as interpreted by the Court of Appeals?

TABLE OF CONTENTS

Page

QUESTIONS PRESENTED iii

TABLE OF AUTHORITIES iv

INTEREST OF THE AMICUS CURIAE 2

ARGUMENT 2

I. A copying Entity's Use of FDA Mandated Institutional Review Boards Could Allow Regulation Related Experimentation without Infringement with no Direct Submission to or Supervision by FDA 2

II. There are Persuasive Reasons Why Congress Created An Exception for Non-Infringement under § 271(e)(1) for Drugs and Not for Devices 6

CONCLUSION 8

TABLE OF AUTHORITIES

CASES:

Eli Lilly and Company v. Medtronic Inc., 872 F.2d 402 (Fed. Cir. 1989) 2

STATUTES AND REGULATIONS:

Drug Price Competition and Patent Term Restoration Act of 1984, Pub. L. No. 98-417, 98 Stat. 1585 (1984) 2, 6

35 U.S.C. § 271(e)(1) ..... *passim*
21 C.F.R. § Part 4
21 C.F.R. § 50.1 2
21 C.F.R. § Part 56 4
21 C.F.R. § 56.101 3
21 C.F.R. § 56.102(c) 3
21 C.F.R. § 56.102(d) 3
21 C.F.R. § 56.102(f) 3
21 C.F.R. § 320.1(a) 6
21 C.F.R. § 320.1(e) 6
21 C.F.R. § 320.1(f) 6
21 C.F.R. § 320.25(a)(1) 6
21 C.F.R. § 320.25(a)(2) 6
21 C.F.R. § Part 812 4
21 C.F.R. § 812.1 3
21 C.F.R. § 812.1(a) 4
21 C.F.R. § 812.2(b) 4
21 C.F.R. § 812.2(b)(i)(ii) 4
21 C.F.R. § 812.3(g) 4
21 C.F.R. § 812.3(h) 4
21 C.F.R. § 812.3(m) 4
21 C.F.R. § 812.3(p) 2
21 C.F.R. § 812.7(b) 5
21 C.F.R. § 812.25(c) 4
21 C.F.R. § 812.62(a) 5
21 C.F.R. § 812.66 4
21 C.F.R. § 812.145 3
21 C.F.R. § 812.150(b)(9) 4

OTHER SOURCES:

Pfizer Hospital Products Group, Inc., *Amicus Curiae Brief* 6

U.S. Dept. of Health and Human Services, Public Health Service, Food and Drug Administration, FDA Information Sheets

Clinical Investigators Unaffiliated with an Institution with an IRB

Non-Local IRB Review 3

Sponsor-Clinical Investigator – Interrelationship 3, 4

No. 89-243

In The
Supreme Court of the United States
October Term, 1989

ELI LILLY AND COMPANY

Petitioner,

v.

MEDTRONIC, INC.,

Respondent.

BRIEF FOR AMICUS CURIAE NEUROMEDICAL TECHNOLOGIES, INC. IN SUPPORT OF PETITIONER ELI LILLY

Neuromedical Technologies, Inc. submits this brief of *amicus curiae* in support of Petitioner Eli Lilly and Company.

INTEREST OF THE AMICUS CURIAE

NMTI a developer and manufacturer of medical devices files this brief in support of the position of Eli Lilly and Company ("Lilly") in this Court's review of the decision of the Court of Appeals for the federal Circuit in this matter. In that decision, issued on March 29, 1989, the circuit Court interpreted 35 U.S.C. § 271(e)(1) to apply to federally regulated medical devices as well as drugs thereby truncating the patent protection available to medical devices. This decision, if allowed to stand, will have serious and adverse effects on NMTI's activities in research, development and ultimate clinical application of its technology. Patent protection of proprietary technology is one of the most important elements in persuading investors that a technology is not only potentially useful but can be brought into the market place profitably. Vitiation of patent protection has a magnified and debilitating effect on an innovating company's acquisition of funding necessary to accomplish its goals.

ARGUMENT

I. A COPYING ENTITY'S USE OF FDA MANDATED INSTITUTIONAL REVIEW BOARDS COULD ALLOW REGULATION RELATED EXPERIMENTATION WITHOUT INFRINGEMENT WITH NO DIRECT SUBMISSION TO OR SUPERVISION BY FDA.

The decision by the Court of Appeals in Eli Lilly and Co. v. Medtronic, Inc., 872 F.20 402 (Fed. Cir. 1989) interpreted a provision of the Drug Price Competition and Patent Term Restoration Act of 1984 (Pub. L No. 98-417, 98 Stat. 1585 (1984)) to provide that it is not an act of infringement to make, use, or sell a patented medical device for uses reasonably related to the development and submission of information to the Food and Drug Administration (FDA) under the Federal Food, Drug, and Cosmetic Act. That provision, codified as 35 U.S.C. § 271(e)(1), was enacted to permit limited testing of drugs during the term of an otherwise infringed patent. This testing was intended to demonstrate the bioequivalance of generic drugs prior to the termination of patented drugs with which said generic drugs might compete when the patent expires. The clear intent of the

law was facilitation of public access to cheaper generic drugs without extensive delay engendered by delaying testing until after patent expiration allowed testing to begin. Because of the differences in regulation of the investigation of experimental drugs and devices, the extrapolation of this intent by the circuit court's decision will encourage copying of patented medical devices and intrusions into their markets.

Since 1976, FDA regulations have required that studies involving investigation of medical devices performed on human subjects in institutions (including hospitals, nursing homes, mental institutions and prisons) be approved by an institutional Review Board (IRB) and be subjected to continuing review by the IRB. 21 C.F.R. §§ 50.1, 56.101, 812.1 (1989). All persons seeking exceptions for device testing involving human subjects must submit the studies for IRB review. 21 C.F.R. § 812.1 (1989). These studies must be reviewed and approved by an IRB whether subjects are institutionalized or not. 21 C.F.R. §§ 56.102(c), (d) & (f), 812.3(p) (1989).

The FDA may conduct on-site *procedural* reviews of IRBs and may inspect records of an investigation and sites where devices are used 21 C.F.R. § 812.145 (1989). These reviews are designed and conducted to determine whether an IRB is operating in accordance with its own written procedures as well as complying with current FDA regulations affecting IRBs.

A sponsor-investigator can obtain IRB review at an institution whose IRB conforms with FDA's regulations or by submitting the research proposal to an IRB created under the auspices of a local or State government health agency, community hospital, a medical school, a medical society, the State medical licensing board, an independent nonprofit group or other related organizations. The regulations allow sponsors of a study to form IRBs which can review clinical investigations conducted by investigators doing work for the sponsor. Establishment of commercial IRB organizations to review clinical investigations conducted by unaffiliated investigators is permitted by the regulations. FOOD AND DRUG ADMINISTRATION, FDA INFORMATION SHEETS, *NON-LOCAL IRB REVIEW, CLINICAL INVESTIGATORS UNAFFILIATED WITH AN INSTITUTION WITH AN IRB* (1984).

IRBs must maintain confidentiality of sponsor records, trade secrets and information of commercial interest. IRB members and staff should be aware that information submitted for review may be confidential, trade secret and of commercial interest and should recognize the need for maintaining a sponsor's confidentiality. FOOD AND DRUG ADMINISTRATION, FDA INFORMATION SHEETS, *SPONSOR-CLINICAL INVESTIGATOR-IRB INTERRELATIONSHIP* (1984).

Investigational devices are medical devices which are the object of clinical research to determine their efficacy or safety. 21 C.F.R. §§ 812.3(g), (h) (1989). An approved investigational device exemption (IDE) permits a device that otherwise would be required to comply with a performance standard or to have premarket approval to be shipped lawfully for the purpose of conducting investigations of that device. 21 C.F.R. 812.1(a) (1989). Studies undertaken to develop safety and efficacy data for medical devices involving human subjects must be conducted according to the requirements of 21 C.F.R. parts 50, 56 and 812, protection of human subjects, governance by IRB's and granting of IDE's.

Investigational devices are determined to be either significant risk or nonsignificant risk devices. Examples of nonsignificant risk devices are: daily-wear contact lenses, lens solutions, antibacterial surgical garments, Foley catheters and incontinence devices. A significant risk device is one that presents a potential for a serious risk to the health, safety, or welfare of the subject. 21 C.F.R. § 812.3(m) (1989).

In addition to determining whether a study should be approved, IRBs reviewing clinical investigations of medical devices may also have to determine whether the device presents significant or non-significant risk to consenting subjects. 21 C.F.R. §§ 812.2(b)(1(ii), 812.25(c), 812.66, 812.150(b)(9) (1989). The determination that a device presents non-significant risk is initially made by the sponsor and then passed to the IRB for review.

When the principal intent of the investigational use of a test article is to develop information about its efficacy or safety, submission of an IDE is generally required, however the law permits submission of an "abbreviated" IDE in some investigational sit-

uations. 21 C.F.R. § 812.2(b) (1989). Unless otherwise notified by the FDA, an investigation of a nonsignificant risk device is considered to have an approved IDE if the sponsor fulfills the abbreviated requirements of the IDE regulations. These regulations require, in part, that IRB approval be obtained and maintained throughout the investigation and that informed consent be obtained and documented for all subjects. In these situations the ultimate decision to approve the clinical trial rests with the IRB reviewing the plan for the trial and under whose supervision the trial is being conducted. 21 C.F.R. § 812.62(a) (1989).

The IDE regulations allow sponsors to charge for an investigational device; however, the charge should not exceed an amount that is larger than necessary to recover the costs of manufacture, research, development and handling of the investigational device. A sponsor must justify proposed charges for the device, must state the amount to be charged and explain why the charge does not constitute commercialization. Sponsors are generally allowed to charge investigators for the investigational device, and this cost may be passed on to the subject. 21 C.F.R. § 812.7(b) (1989).

There is thus the possibility that a manufacturer could copy a patented device, convene his own IRB which could approve a clinical study that would be in perfect compliance with the FDA regulations. The copying manufacturer as sponsor of this clinical study could collect data on safety and efficacy of his device while charging fees calculated to return amounts balancing research, development and handling costs as well as expenses for implementing the device in clinical service. The subjects of this study will be removed from the patient pool available for purchase and use of the patented device. The copying sponsor while deriving revenue will also be establishing his share of the available market. There are no time limitations defined in the statute or addressed in the Circuit Court's discussion of its decision. Presumably, a copying manufacturer could initiate investigatory activity at any time during the life of the patented device being copied. The clinical test of the copy could run throughout the patent term of the copied device.

The possibility described in this scenario represents a severe blow to the ideals embodied in the patent statutes. The Court is respectfully requested to overturn the holding of the court below to prevent this emasculation of patent rights.

II. THERE ARE PERSUASIVE REASONS WHY CONGRESS CREATED AN EXCEPTION FOR NON-INFRINGEMENT UNDER § 271(e)(1) FOR DRUGS AND NOT FOR DEVICES.

The Drug Price Competition and Patent Term Restoration Act of 1984 included provisions for abbreviated testing of generic drug substitutes pursuant to regulatory approval. Recourse to abbreviated testing would enable more prompt marketing of generic substitutes after the expiration of the patented drug subject to substitution. The abbreviated testing calls for establishment of bio-equivalence and bioavailability as defined in 21 C.F.R. §§ 320.1(a), (e) and (f) (1989). There are profound differences in testing bio-equivalence and bioavailability of drugs and the requisite safety and efficacy for medical devices. As succintly noted in the *amicus curiae* brief by Pfizer Hospital Products Group, Inc., "There is no equivalent abbreviated testing for 'generic' medical devices." Pfizer brief at page 5.

Conclusive data to secure regulatory approval of medical devices must be obtained in clinical trials involving human subjects. As indicated earlier, once a subject has been exposed in a trial testing a copying medical device, he is unlikely to be available as a repeat patient who would use the patented device. Conversely, the FDA regulations state that it is preferable to determine bioavailability using animal models and healthy human volunteers. 21 C.F.R. §§ 320.25(a)(1) and (2) (1989). Thus, bioavailability testing of a generic substitute drug would not ordinarily impact the market of a patented drug.

Additional important differences between drugs and devices include the fact that generic drugs are manufactured by a relatively few, large pharmaceutical and chemical companies. Inventorship and production of medical devices is much more diverse and covers a much broader scope of enterprise. The Circuit Court's decision will be particularly injurious to the small company, single product component of the medical device

spectrum. The greater scope of device functions and the greater breadth of diversity in device producers indicates a more severe impact of the patent deprivation and taking effects of the lower court's decision. Investors contemplating medical device development will choose to back ventures employing copied devices whose value has been demonstrated by the innovating patent holder rather than encounter more risk associated with newer but less proven devices which would have been required to be at least colorably patentably distinct before the decision in the court below.

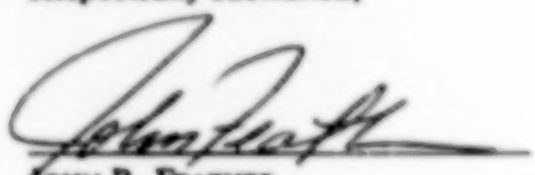
Aside from the fact stated by Petitioner and the other amici, that Congress only intended §271(e)(1) to apply to drugs, the profound differences between drugs and medical devices must be considered when contemplating the effects of the Circuit Courts ruling. We respectfully submit that both the development and the regulatory approval processes for devices are different than those for drugs. The interaction of these differences and the Circuit Court's decision will lead to adverse effects on innovating entities attempting to develop safe and effective devices for commercial clinical use. The negative effect of the Circuit Court's decision on the medical device industry and the public it serves combines with the obvious error committed in that decision to require reversal by this Court.

CONCLUSION

In removing threat of suit for infringement against generic drug producers attempting to hasten market entry, Congress has enacted a limited taking of rights from owners of drug patents. This limitation is reasonably defined by the relatively small number of generic drug producers and minimal market impact engendered in FDA approval of generic drugs. The enlargement of the scope of 35 U.S.C. § 271(e)(1) by the Court of Appeals to include medical devices affects vastly more patent owners, over potentially longer periods in patent terms and, because of the nature of the FDA regulation governing device testing, allows a copying device to erode a patented device's market. The harm potentiated by this decision exceeds the scope of the utility Congress sought to achieve in increasing the availability of less expensive drugs.

Therefore, *Amicus curiae* respectfully requests this Court review and reverse the decision by the Court of Appeals.

Respectfully submitted,



JOHN R. FEATHER
Counsel of Record
VADEN, EICKENROHT,
THOMPSON & BOULWARE
One Riverway, Suite 1100
Houston, Texas 77056

Of Counsel
MALCOLM H. SKOLNICK
University of Texas Health Science Center
Neurophysiology Center
1343 Moursund Avenue
Houston, Texas 77030

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing **Amicus Curiae Brief of Neuro Medical Technologies, Inc. and Certificate of Service** have been served on Philip Johnson, Esq. and Albert W. Preston, Jr., Woodcock, Washburn, Kurtz, Mackiewicz and Norris, One Liberty Place, 46th Floor, Philadelphia, PA 19103, Timothy J. Malloy, McAndrews, Held & Malloy, Ltd., 500 West Madison Street, 31st Floor, Chicago, Illinois 60606 and John Lynch, Arnold, White & Durkee, 750 Bering Drive, Suite 400, Houston, Texas 77057, via first class mail, postage prepaid, on this 27th day of November, 1989.